



Metabolomics – Volatile fingerprinting of wine



What is volatile fingerprinting?

Volatile fingerprinting is a rapid, inexpensive screening technique for wine volatiles. The method uses a novel rapid GC/MS (gas chromatography/mass spectrometry) 'fingerprinting' method for the analysis of wine volatiles. It combines unique instrument parameters with sophisticated statistical analysis.

The fingerprinting method allows for a large number of samples to be analysed and grouped based on their volatile profile. Screening can be undertaken prior to more comprehensive analysis of a smaller subset of selected samples.

The SA Metabolomics Facility will perform all sample preparation, chemical analysis and data processing. Data processing includes all pre-processing and quality control checks, the provision of a finalised data matrix (that can be imported in a statistical software package

of your choice) and preliminary multivariate data analysis (Principal Component Analysis).

Why is it important?

While other screening techniques are available that focus on the wine matrix itself, this fingerprinting technique is specifically designed to analyse the wine aroma. This method enables winemakers and researchers to screen a much larger number of different winemaking treatments, something that was not previously possible with existing quantitative techniques (due to cost and time involved).



The Australian Wine
Research Institute

Fact Sheet

ANALYSIS

Costing

The SA Metabolomics Facility can perform volatile fingerprinting on red and white wines with minimal volume of sample required. Pricing is dependent on the source of funding and the number of samples, so please contact Natoiya Lloyd on natoiya.lloyd@awri.com.au for pricing.

Contact

For further information, please contact:

AWRI Metabolomics Facility

Phone 08 8313 6600 **Fax** 08 8313 6601

Email natoiya.lloyd@awri.com.au

Website

https://www.awri.com.au/research_and_development/metabolomics_facility/

Address Wine Innovation Central Building,
Corner of Hartley Grove & Paratoo Rd,
Urrbrae (Adelaide), SA 5064



METABOLOMICS
AUSTRALIA